

REMARKS

Claims 1-9, 11-13 and 15-23 are pending. By this Amendment, Fig. 3 is amended. Reconsideration of the present application based on the above amendments and the following remarks is respectfully requested.

Applicants appreciate the courtesies extended Applicants' representative by Examiners Misleh and Garber during the April 5 personal interview. Applicants' separate record of the substance of the personal interview is incorporated into the following remarks.

I. Drawings

The Office Action objects to Fig. 3 because the subtraction block is labeled in Fig. 3 with reference sign 320 and labeled in the specification with reference sign 420. Attached is a replacement sheet for Fig. 3 with the subtraction block labeled with reference sign 420. Accordingly, withdrawal of the objection is respectfully requested.

II. Claim Rejections

The Office Action reject claims 1 and 21 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 4,525,741 to Chahal; claims 2-4, 6, 9, 22 and 23 under 35 U.S.C. §103(a) as being unpatentable over Chahal in view of U.S. Patent No. 5,925,875 to Frey; and claims 2-9, 11-13, 15-20, 22 and 23 under §103(a) as being unpatentable over Chahal in view of U.S. Patent No. 6,252,536 to Johnson. These rejections are respectfully traversed.

As discussed during the personal interview, the applied art fails to disclose a method of calibrating video, comprising: calibrating for pixel gain by multiplying a video signal output from an integrator, said video signal compensating for pixel error for both a video channel with an automatic gain control tab and a video channel without an automatic gain control tab, as claimed in claim 1; or an image sensor comprising: an integrator, wherein pixel gain is calibrated for by multiplying a video signal output from the integrator, said video

Amendments to the Drawings:

The attached replacement drawing sheet makes changes to Fig. 3 and replaces the original sheet with Fig. 3.

Attachment: Replacement Sheet

signal compensating for pixel error for both a video channel with an automatic gain control tab and a video channel without an automatic gain control tab, as claimed in claim 21.

Chahal discloses:

The Fairchild Model 133/143 also has internal black and white references and operates on a single power supply. CCD 10 has two output lines or channels with each of the output lines having an output from a different photosensor element thereon at a different time than the other output line. Channel A, for example, may represent the output of all the odd-numbered photosensor elements and channel B may represent the output of all the even-numbered elements on the CCD (col. 4, lines 1-10).

There is no disclosure in Chahal of calibrating for pixel gain by multiplying a video signal, said video signal compensating for pixel error for both a video channel with an automatic gain control tab and a video channel without an automatic gain control tab.

III. The Examiner Interview

The Examiners stated during the interview that Chahal does not include a white reference video channel. The Examiners also requested clarification of the transition between Pixel Offset 300 and Automatic Gain Control Process (AGC) 400 of Fig. 1 to the multiple channel inputs of Fig. 3.¹

The Brief Description of the Drawings section discloses that both Figs. 1 and 3 are exemplary embodiments. Specifically, Fig. 1 is disclosed as a block diagram showing processes of an exemplary calibration system, and Fig. 3 is disclosed as a block diagram showing an exemplary embodiment of an automatic gain control process. Because both figures are exemplary embodiments, it is not necessary that the exemplary embodiment shown in Fig. 1 be consistent with the exemplary embodiment shown in Fig. 3. For example,

¹ Although the Interview Summary indicated Fig. 4, Fig. 4 does not show multiple channels and was not discussed substantively during the personal interview. Instead, it is believed that the Examiners were referring to Fig. 3 in the Interview Summary.

Fig. 1 discloses a process and Fig. 3 discloses a structure. Nonetheless, Figs. 1 and 3 are consistent in at least the following respect.

For example, the embodiment of Fig. 1 has a video 1200 provided by the pixel offset process 300 to the AGC 400. The video 1200 may include a video channel with an automatic gain control tab and a video channel that does not have an automatic gain control tab. Fig. 3 shows that Video In 1200 is input to both multiplier 410 (video channel with AGC tab) and multiplier 440 (other video channels without AGC tab). As such, although Fig. 1 shows a single arrow representing video 1200, the single arrow representing video 1200 represents both the Video In 1200 input to multiplier 410 and the Video In 1200 input to multiplier 440.

This exemplary embodiment is consistent with the specification. For example, the specification discloses on page 1, lines 29-30, that an exemplary image sensor can include multiple channels to transfer images at high scan speeds. Moreover, as discussed in the application at, e.g., page 6, line 7 – page 7, line 9, a tab to sense a single channel may be provided in the image sensing path of the sensor (see, e.g., page 6, lines 10-14), and the automatic gain control process may be performed differently for a channel with an automatic gain control tab versus the other video channel(s) that do not have the automatic gain control tab (see, e.g., page 6, lines 20-23). As such, the features of claim 1 are clearly described in the specification.

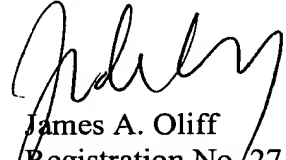
IV. Conclusion

Thus, for at least the reasons discussed above, it is respectfully submitted that claims 1 and 21 are distinguishable over the applied art. Furthermore, those claims which depend from claims 1 and 21 are likewise distinguishable over the applied art for at least the reasons discussed above, as well as for additional features they recite. Accordingly, withdrawal of the rejections is respectfully requested.

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,


James A. Oliff
Registration No. 27,075

Jude L. Cooney
Registration No. 54,045

JAO:JLC/aaw
Attachment:
Replacement Sheet Fig. 3

Date: April 11, 2005

OLIFF & BERRIDGE, PLC
P.O. Box 19928
Alexandria, Virginia 22320
Telephone: (703) 836-6400

<p>DEPOSIT ACCOUNT USE AUTHORIZATION Please grant any extension necessary for entry; Charge any fee due to our Deposit Account No. 15-0461</p>
--